AMENDMENTS TO THE CLAIMS:

Without prejudice, this listing of the claims replaces all prior versions and listings of the claims in the present application:

LISTING OF THE CLAIMS:

1-18. (Canceled).

19-22. (Canceled).

23. (Currently Amended) The sensor as recited in claim [[22]] 26, wherein the at least one heating electrode has a meandering shape.

24. (Canceled).

25. (Currently Amended) The sensor as recited in claim [[22]] 26, wherein the at least one heating electrode has at least two areas of different cross sections.

26. (Currently Amended) [[The] A sensor for measuring the viscosity of a liquid, ~~as recited in claim 24,~~ comprising:

at least one piezoelectric component configured as a resonator;

at least one first starting electrode situated on a sensitive surface of the sensor;

at least one second starting electrode; and

at least one heating electrode provided for heating the liquid to be measured,

wherein the at least one heating electrode is situated on or next to the sensitive surface of the sensor and is configured in one piece with the at least one first starting electrode,

wherein the at least one heating electrode spans a surface area of the sensor having a central area,

wherein the central area includes a center region, and the center region includes a center point,

wherein the surface area of the sensor has an approximately uniform temperature distribution in an operating temperature range,

wherein a resistance per unit of length of the at least one heating electrode varies for at least two areas of the at least one heating electrode, and

wherein the resistance per unit of length of the at least one heating electrode varies as a function of distance from one of the central area, the center region, [[and]] or the center point.

27. (Currently Amended) [[The] A sensor for measuring the viscosity of a liquid, ~~as recited in claim 24,~~ comprising:

at least one piezoelectric component configured as a resonator;

at least one first starting electrode situated on a sensitive surface of the sensor;

at least one second starting electrode; and

at least one heating electrode provided for heating the liquid to be measured,

wherein the at least one heating electrode is situated on or next to the sensitive surface of the sensor and is configured in one piece with the at least one first starting electrode,

wherein the at least one heating electrode spans a surface area of the sensor having a central area,

wherein the central area includes a center region, and the center region includes a center point,

wherein the surface area of the sensor has an approximately uniform temperature distribution in an operating temperature range,

wherein a resistance per unit of length of the at least one heating electrode varies for at least two areas of the at least one heating electrode, and

wherein the resistance per unit of length of the at least one heating electrode increases with distance from one of the central area, the center region, [[and]] or the center point, toward an edge of the surface area of the sensor.

28. (Currently Amended) The sensor as recited in claim [[22]] 26, further comprising:

a temperature measuring sensor.

29. (Previously Presented) The sensor as recited in claim 28, wherein the at least one heating electrode is incorporated in the temperature measuring sensor.

30. (Currently Amended) The sensor as recited in claim [[22]] 26, wherein at least one of the at least one first starting electrode, the at least one second starting electrode, and the at least one heating electrode is coated with an insulation layer.

31. (Previously Presented) A method for measuring the viscosity of a liquid, comprising: contacting at least one sensitive surface of a sensor with the liquid to be measured; heating the liquid by a heating electrode in the area of the sensitive surface; inducing the sensor to oscillate by applying an alternating voltage to the sensor; and ascertaining a viscosity value of the liquid from values of electrical parameters measured by the sensor.

32. (Previously Presented) The method as recited in claim 31, further comprising:
measuring the temperature of the liquid.

33. (Previously Presented) The method as recited in claim 32, wherein, upon reaching a predefined temperature, the heating of the liquid is interrupted, the electrical parameters are measured, and the viscosity value of the liquid is ascertained.

34. (Previously Presented) The method as recited in claim 33, wherein the viscosity value of the liquid is ascertained for a plurality of predefined temperatures.

35. (Previously Presented) The method as recited in claim 34, wherein a curve of the liquid's viscosity plotted against the temperature is generated based on the viscosity values of the liquid ascertained at the plurality of predefined temperatures.

36. (New) The sensor as recited in claim 27, wherein the at least one heating electrode has a meandering shape.

37. (New) The sensor as recited in claim 27, wherein the at least one heating electrode has at least two areas of different cross sections.

38. (New) The sensor as recited in claim 27, further comprising:
a temperature measuring sensor.

39. (New) The sensor as recited in claim 27, wherein the at least one heating electrode is incorporated in the temperature measuring sensor.

40. (New) The sensor as recited in claim 27, wherein at least one of the at least one first starting electrode, the at least one second starting electrode, and the at least one heating electrode is coated with an insulation layer.

41. (New) The sensor as recited in claim 27, further comprising:

a temperature measuring sensor, wherein the at least one heating electrode is incorporated in the temperature measuring sensor;

wherein the at least one heating electrode has a meandering shape, wherein the at least one heating electrode has at least two areas of different cross sections, wherein the at least one heating electrode is incorporated in the temperature measuring sensor, and wherein at least one of the at least one first starting electrode, the at least one second starting electrode, and the at least one heating electrode is coated with an insulation layer.